

GRK 2338 RTG
**“Targets in Toxicology - Deciphering Therapeutic
Targets in Lung Toxicology”**

Annual Research Retreat 2025

Schloss Tutzing
May 12 – May 13, 2025

PROGRAM



Research Training Group 2338 – Targets in Toxicology

Monday, 12.05.2025

11:00 – 11:15 **Prof. Dr. med. Thomas Gudermann**
"Welcome"

Session 1: Chair: Rosa Reithmeir & Alexa Wachtler

11:15 – 12:00 **Prof. Dr. med. Sebastian Kobold**
How immune cells can be deployed for cancer therapy

12:30 – 13:30 --- Lunch ---

13:30 – 13:50 **Anja Michl – P06**
Spatially resolved single cell analysis of human lung aging

13:55 – 14:15 **Osama Huzain – P05**
Nanomaterial-Cell Interactions: Towards In Vitro Models for High Throughput Prediction Assays

14:20 – 14:40 **Randhwaj Pratap Singh – P04**
Lungs Interstitial macrophages and TRP channels

14:45 – 15:05 **Susanne Hermann– P11**
Molecular mechanisms of immune response and exhaustion in male and female patients with non-small cell lung cancer

15:05 – 15:35 --- Coffee ---

Session 2: Chair: Rosa Reithmeir & Alexa Wachtler

15:40 – 16:00 **Vladyslav Parkohomov – P08 MD**
Role of endolysosomal cation channels in chronic inflammatory diseases

16:05 – 16:25 **Alisa Riediger – P07**
Immuno-toxicological mechanisms driving airway loss as a pathological trigger of COPD initiation

16:30 – 16:50 **Dmytro Sirokha – P11 Affiliate**
Myeloid Cells as Drivers from Healthy Lung to IPF: Multidimensional Analysis of Transcriptomic and Proteomic Changes

18:00 – 19:00 --- Dinner ---

19:30 **Networking and Scientific Exchange**

Research Training Group 2338 – Targets in Toxicology

Tuesday, 13.05.2025

08:00 – 09:00 --- Breakfast ---

Session 3: Chair: Osama Huzain + Randhwaj Pratap Singh

- 09:10 - 09:30 **Vasco Peixoto – P10**
Mapping the function of TRPM7 in respiratory cells
- 09:35 - 09:55 **Alexa Wachtler – P03**
Development of a fluorescence-based assay for investigating effects on chymotrypsin activity caused by small molecule inhibitors
- 10:00 - 10:20 **Ghofrane Ben Helal – P12**
Aptamers for Targeted Delivery of Nucleoside Drugs
- 10:25 - 10:45 **Zala Serianz – P08**
TRPML channels in lung disease
- 10:45 – 11:15 --- Coffee ---

Session 4: Chair: Osama Huzain + Randhwaj Pratap Singh

- 11:15 - 11:35 **Anna van Echten – P02**
Investigation of mucin expression induced by organophosphorus compounds using PCLS
- 11:40 - 12:00 **Pranavkumar Shadamarshan Rengasayee – P13**
Functional Dissection of Neuroendocrine Differentiation in Small-Cell Lung Cancer Models
- 12:05 - 12:25 **Hala Mammadova – P06 MD**
Imaging functional perturbations in lung tissue slice cultures — Understanding chronic lung disease one cell at a time
- 12:30 - 13:45 --- Lunch ---
- 13:50 - 14:00 **Rosa Reithmeir – 01**
Identification of interaction partners of the pro-inflammatory P2X7 receptor by proximity labelling
- 14:00 – 14:10 **Alexander Diederichs – 09**
Therapeutic manipulation of the alveolar macrophage in lung fibrosis
- 14:10 – 14:15 **Thomas Gudermann**
“Closing”
- 14:15 – 14:30 --- Coffee ---